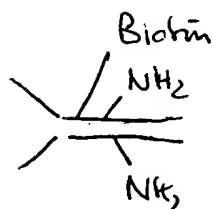




# Immunoconjugation (Examples 3 + 10)



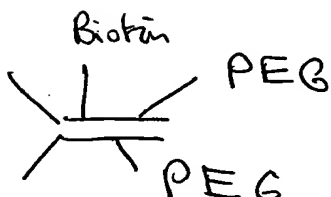
biotinylated antibody

+

PEG - OSu

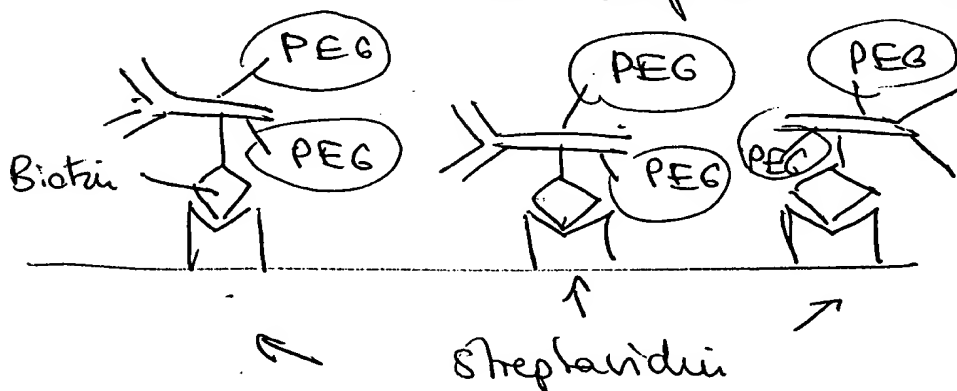
monofunctionalized  
PEG - Derivative

reaction



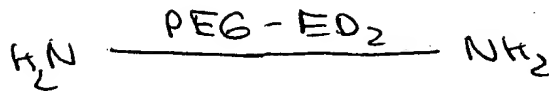
PEG-conjugate of biotinylated antibody

immobilization  
on Streptavidin-surface



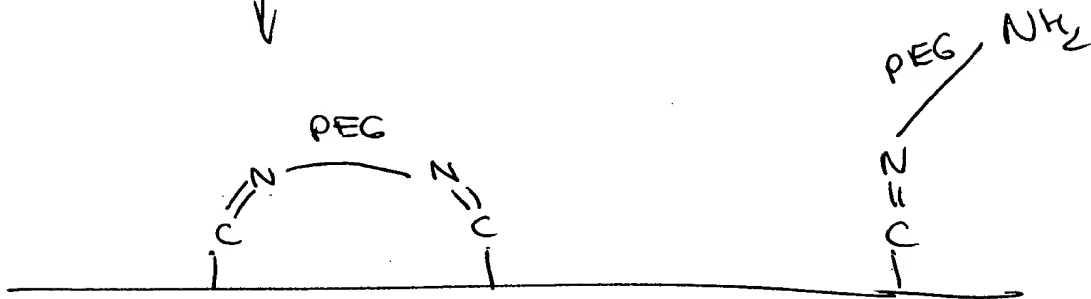
resulting product: PEG protects antibody  
from unspecific interactions;  
no undesired side-reactions and  
byproducts

# II) Prior art (Herron)



bifunctional PEG derivative

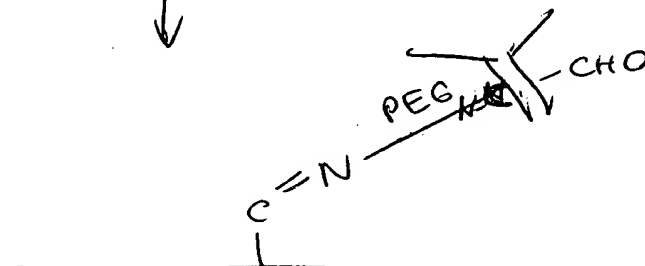
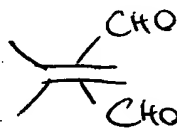
immobilization on CHO-modified surface



↑  
undesired by-product  
both amino groups  
react with surface;  
no antibody binding  
possible

↑  
desired product  
one free functionality  
for antibody  
binding

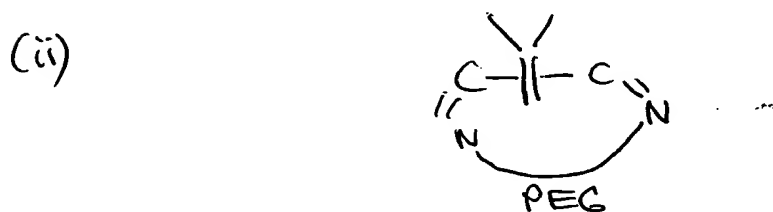
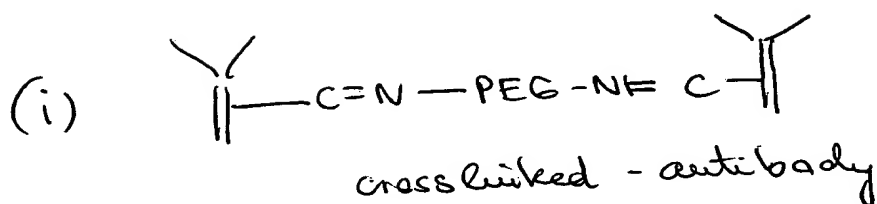
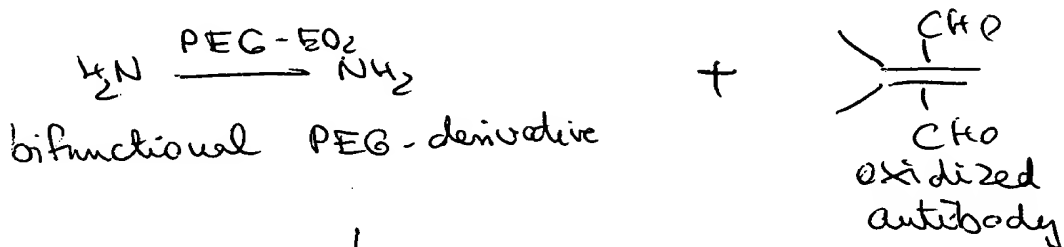
addition of oxidized antibody



resulting product: PEG acts as spacer for binding to surface; no protection from unspecific interactions e.g. with sample components

(11)

Preformation of PEG-antibody conjugate is not feasible according to the teachings of Herrou



intramolecular reaction product